

11. (NEW) The article of claim 1 wherein said layer comprised of refractory metal nitride or refractory metal alloy nitride is one of zirconium nitride, titanium nitride, hafnium nitride, tantalum nitride, and zirconium-titanium alloy nitride.

12. (NEW) The article of claim 6 wherein said refractory metal is one of tantalum, hafnium, zirconium and titanium.

13. (NEW) The article of claim 9 wherein said refractory metal alloy is zirconium-titanium alloy.

REMARKS

Claim 8 is objected to as being dependent on a rejected base claim, but the Examiner indicated that the claim would be allowable if rewritten in independent form to include the limitations of the base claim and any intervening claims. Claim 8 has been rewritten in independent form to include the limitations of base claim 1.

Claims 4-7 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 4-7 have been amended to clarify that the layer is comprised of refractory metal nitride or refractory metal alloy nitride.

Claims 1-3 stand rejected under 35 U.S.C. §102(b) as being anticipated by Muromachi et al (United States Patent No. 5,336,565), or in the alternative, under 35 U.S.C. §103(a) as being obvious over Muromachi et al. Claims 4-7 are also rejected under 35 U.S.C. §103(a). Muromachi discloses an automotive window glass 6 including a pair of transparent sheet glasses 2 and 3, a heat-ray intercepting film 1, and a transparent resin film 4. The heat-ray intercepting film 1 is made of a metal oxynitride.

Claims 1-3 are not anticipated by Muromachi. Muromachi does not disclose a layer comprised of refractory metal nitride or refractory metal alloy nitride. Muromachi discloses that the heat-ray intercepting film 1 is made of a metal oxynitride; the heat-ray intercepting film 1 is not a metal nitride as required by Applicant's claims. A metal nitride is a binary compound of

nitrogen and metal. A metal oxynitride is a tertiary compound of nitrogen, oxygen and metal. Muromachi does not disclose a layer of a refractory metal nitride or a refractory metal alloy nitride as required by Applicant's claims, and Claims 1-3 are not anticipated by Muromachi.

Additionally, claims 1-7 are not obvious in view of Muromachi. Claims 1-3 require that the layer of refractory metal nitride or refractory metal alloy nitride has a nickel color. As Muromachi discloses an automotive window glass for use in a car, it would not be possible or desirable to employ a layer having a nickel color as required by Applicant's claims. A car window should be clear and transparent and not nickel in color. As disclosed in column 2, lines 16 to 20 of Muromachi, window glass is not suitable for a car when it is yellowish. Coloring the automobile glass would ruin the purpose of the window. It is not obvious to employ metal nitrides or metal alloy nitrides having a nitrogen content of 6 to 45 atomic percent in Muormachi

The Examiner also states that it would be obvious to apply more than one layer of a coating to further enhance the properties of the coating as claimed in claim 4-7. The additional layers claimed by Applicant are either metal oxide, metal alloy oxide or the reaction products of metal/metal alloy, nitrogen and oxygen. These layers are applied in addition to a layer of metal nitride or metal alloy nitride. Applicant is not simply applying additional layers of the same material, but is rather applying layers of different materials. Muromachi does not disclose or suggest employing a layer that is the reaction product of metal/metal alloy, nitrogen and oxygen as required by Applicant's claims. Muromachi also does not disclose employing additional layers of a different material. It would not be obvious to provide an additional layer of a different material, and Claims 4-7 are not obvious.

Claims 1-3 stand rejected under 35 U.S.C. §103(a) as being obvious over Van de Leest et al. (United States Patent No. 4,509,161). Van de Leest discloses an information disc including a substrate 12, a lacquer layer 13 and a layer of titanium nitride 17x. As shown in the table, the percentage of nitrogen in the sputtering gas is between 18.1 and 31%. However, Van de Leest does not disclose the atomic percent of the nitrogen content in the titanium nitride. The Examiner contends that it would be obvious to have the atomic percent of the nitrogen content in the titanium nitride to be between 6 to 45 as claimed by Applicant.

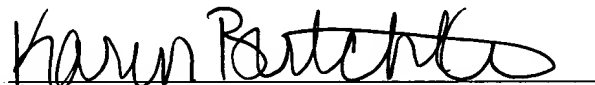
There is no suggestion in Van de Leest to employ a refractory metal nitride or a refractory metal alloy nitride having a nitrogen content between 6 and 45 as required by Applicant's claims.

This range is employed to provide the nickel color as claimed by Applicant. Van de Leest does not disclose or suggest a layer having a nickel color, but rather suggests a metal nitride layer having a light yellow to red color. There is no suggestion in Van de Leest to employ a layer of metal nitride or metal alloy nitride having a nickel color and a nitrogen content of 6 to 45 as required by Applicant's claims. The atomic percent of the nitrogen is not suggested or disclosed, and a nickel color layer is also not disclosed or suggested. Claims 1-3 are not obvious.

Thus, claims 1-13 are in condition for allowance. No additional fees are seen to be required. If any additional fees are due, however, the Commissioner is authorized to charge Deposit Account No. 50-1482, in the name of Carlson, Gaskey & Olds, P.C., for any additional fees or credit the account for any overpayment. Therefore, favorable reconsideration and allowance of this application is respectfully requested.

Respectfully Submitted,

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CERTIFICATE OF MAIL

I hereby certify that the enclosed Response is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Assistant Commissioner of Patents, Washington D.C. 20231 on this 8th day of January 2003.



Tracey Belanger

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MARKED UP VERSION SHOWING CHANGES MADE

1. (AMENDED) An article having on at least a portion of [its] a surface a multi-layer coating having the appearance of nickel comprising:
a layer comprised of polymer; and
a layer comprised of refractory metal nitride or refractory metal alloy nitride where said nitrogen content of said refractory metal nitride or refractory metal alloy nitride is from about 6 to about 4 atomic percent, and said layer comprised of refractory metal nitride or refractory metal alloy nitride providing the appearance of a nickel color.
4. (AMENDED) The article of claim 1 wherein a layer comprised of refractory metal oxide or refractory metal alloy oxide is on said layer comprised of refractory meal nitride or refractory metal alloy nitride.
5. (AMENDED) The article of claim 3 wherein a layer comprised of refractory metal oxide or refractory metal alloy oxide is on said layer comprised of refractory meal nitride or refractory metal alloy nitride.
6. (AMENDED) The article of claim 1 wherein a layer comprised of the reaction products of (i) refractory metal, (ii) oxygen and (iii) nitrogen is on said layer comprised of refractory meal nitride or refractory metal alloy nitride.
7. (AMENDED) The article of claim 3 wherein a layer comprised of the reaction products of (i) refractory metal, (ii) oxygen and (iii) nitrogen is on said layer comprised of refractory meal nitride or refractory metal alloy nitride.

8. (AMENDED) An article having on at least a portion of a surface a multi-layer coating having the appearance of nickel comprising:

a layer [The article of claim 1 wherein said layer comprised of polymer is] comprised of epoxy urethane; and

a layer comprised of refractory metal nitride or refractory metal alloy nitride where said nitrogen content of said refractory metal nitride or refractory metal alloy nitride is from about 6 to about 4 atomic percent.